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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jihyun Francis Kim

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D-2062B)

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10/14/2003

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EXAMINER

KUBELIK, ANNE R

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 10/14/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/596,958

Applicant(s)

KIM ET AL.

Examiner

Anne R. Kubelik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 July 2003 has been entered.
2. The claim and amendments to the specification filed 22 April 2003 have been entered, as requested in the RCE filed 18 July 2003. Claims 1-10 are pending.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

4. The rejection of claims 1, 4-10 under 35 U.S.C. 102(a) as being anticipated by Kim et al I (Phytopathology 87:S52) is withdrawn in light of Applicant's arguments.

Response to Amendment

5. The rejection of claims 1 and 4-10 under 35 U.S.C. 102(e) as being anticipated by Bauer et al (US Patent 5,850,015, filed June 1995) is withdrawn in light of amendment to the claims to recite hybridization conditions.
6. The rejection of claims 1 and 4-10 under 35 U.S.C. 102(b) as being anticipated by Wei et al (1992, Science 257:85-88) is withdrawn in light of amendment to the claims to recite hybridization conditions.

Claim Rejections - 35 USC § 112

7. Claims 1 and 4-10 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for nucleic acids of SEQ ID NO:1 or encoding SEQ ID NO:2, does not reasonably provide enablement for nucleic acids that hybridize under conditions of unspecified stringency to SEQ ID NO:1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. The rejection is repeated for the reasons of record as set forth in the Office action mailed 17 June 2002. Applicant's arguments filed 22 April 2003 have been fully considered but they are not persuasive.

Applicant urges that the amendment incorporating material from Sambrook overcomes the rejection because the hybridization and wash conditions have been specified in detail (response pg 7-8).

This is not found persuasive because the specification does not teach the sequence of any hypersensitive response elicitor-encoding gene that hybridizes to SEQ ID NO:1 other than SEQ ID NO:1.

8. Claims 1 and 4-10 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The rejection is repeated for the reasons of record as set forth in the Office action mailed 17 June 2002. Applicant's arguments filed 22 April 2003 have been fully considered but they are not persuasive.

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Applicant urges that one of ordinary skill in the art would recognize that Applicant was in possession of isolated DNA molecules from other species of *Erwinia* that encode HrpW homologs. Applicant urges that they have identified a single species of HrpW by its nucleotide sequence and have shown by Southern hybridization that *hrpW* is widespread among *Erwinia* pathogens (response pg 9).

This is not found persuasive because Southern hybridization is not the same thing as isolation of DNAs. Hybridization is not the same thing as the structural elements of DNA. Applicant has not described the structural features of any hypersensitive response elicitor-encoding gene that hybridizes to SEQ ID NO:1 other than SEQ ID NO:1. Lastly, the claims are not limited to DNAs from *Erwinia* species.

Applicant urges that the specification teaches that the *hrpW* protein shares properties of other hypersensitive response elicitors including being glycine rich, lacking cysteine, have heat stability, having low mobility in SDS page and having an ability to elicit HR. Applicant urges that these properties are shared by an art-recognized class of such proteins, as recognized by Bonas I, Bonas I and Preston (response pg 9).

This is not found persuasive because Applicant has not described the structural elements common to the claimed genes but not to nucleic acids encoding other hypersensitive response elicitors.

Applicant urges that one of ordinary skill in the art would have understood that they were in possession not just of the isolated DNA of SEQ ID NO:1 but also of the DNAs identified by hybridization. Applicant urges that one of ordinary skill in the art would have expected the

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proteins encoded by the DNAs of other *Erwinia* species to also encode hypersensitive response elicitors (response pg 9).

This is not found persuasive. Applicant has not shown that these other species actually encode hypersensitive response elicitors. Southern hybridization is not the same thing as isolation of DNAs.

See *Univ. of California v. Eli Lilly*, 119 F.3d 1559, 43 USPQ 2d 1398 (Fed. Cir. 1997) at pg 1406:

... A description of a genus of cDNAs may be achieved by means of a recitation of a representative number of cDNAs, defined by nucleotide sequence, falling within the scope of the genus or of a recitation of structural features common to the members of the genus, which features constitute a substantial portion of the genus.

9. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Dependent claims are included in all rejections.

Claim 9 is indefinite because a word or words appear to be missing between “host cell” and “a plant” in line 2.

10. Claims 6-7 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are promoters for the expression vector.

Claim Objections

11. Claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

12. Claims 2-5, 7 and 9-10 are objected to because they start with an improper article.

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Conclusion

13. No claim is allowed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (703) 308-5059. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (703) 308-0198.

Anne R. Kubelik, Ph.D.
October 2, 2003

A handwritten signature in black ink, appearing to read "Anne R. Kubelik", with a stylized, flowing script.